

Application Serial No. 10/763,500
In Response to Office Action dated August 11, 2005
Date October 11, 2005

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Amendments to the Specification:

Please replace paragraphs [0023] with the following paragraph:

[0023] The control program according to the present invention can initialize a home position corresponding to the centered position of the piston 18 within the housing 20, when the piston 18 is sensed by the at least one discrete position sensor 42 located adjacent the midway position with respect to the housing 20. The control program according to the present invention can also calculate a value corresponding to an amount of pressure required in the at least one expandable fluid chamber 14, 16 for moving the piston 18 a desired distance within in the housing 20 from the discrete centered position located midway with respect to the housing 20. The control program can control the at least two electrically actuated proportional flow control valves 26, 28, and/or 30, 32 to obtain the calculated pressure within the at least one expandable fluid chamber 14, 16 corresponding to the desired distance of movement for the piston 18 within the housing 20. Various means can be provided for biasing the piston 18 toward a predetermined position, such as the discrete centered position with respect to the housing 20. If only a single expandable fluid chamber is provided to be controlled by the present invention, the biasing means can include any suitable mechanical device, by way of example and not limitation, a return spring force. If two expandable fluid chambers 14, 16 are provided to be controlled by the system 10 according to the present invention, the biasing means corresponds to the second expandable fluid chamber. It should be recognized that the pressure calculations described in greater detail above can be modified to correspond to pressure acting against a mechanical spring force when determining the appropriate amount of pressure to provide in a single expandable fluid chamber, and that modifications to the pressure calculations could also be made to accommodate a dual piston rod configuration rather than the single rod piston configuration described in detail here.

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